

# MSc in Accreditation Chemistry

*DEPARTMENT OF  
CHEMISTRY*

*Full-time programme  
(1 year)  
or  
Part-time programme  
(2 years)*



香港中文大學理學院  
**FACULTY OF SCIENCE**  
THE CHINESE UNIVERSITY OF HONG KONG

## Overview

The MSc in Accreditation Chemistry is a taught programme offered by the Department. It is designed by our core faculty members with expertise in analytical chemistry and environmental science, honorary professors who are recently retired professional staffs of the HK Government Laboratory, experienced accreditation officers and assessors of the HK Accreditation Service, and the managerial personnel of leading commercial testing laboratories. The prerequisites for enrolment are a recognized BSc degree in fields related to chemistry, as well as proficiency in English as required by our Graduate School.

## Objective

The overarching objective of the Programme is to provide up-to-date and in-depth knowledge in quality assurance schemes adopted by modern commercial testing laboratories. This objective can be further delineated into four aspects:

1. to present a full-view of the development and implementation of chemical testing methodologies,
2. to elucidate the underlying principles of laboratory accreditation,
3. to train students in cutting-edge techniques for chemical analysis of foodstuffs, drugs, environmental pollutants, construction materials, office and household furniture, and consumer products, etc., and
4. to enhance students' familiarity of local and international regulations with regard to safety measures, and relevant protocols for import and export merchandise which require chemical testing. Students who aspire to careers in chemical testing or related industries will find the Programme useful and rewarding.

## Director's Message

The curriculum of the Programme is composed of a wide array of courses covering areas ranging from accreditation and quality assurance to trace analysis and the use of modern analytical instruments, which are tailored for students with different background and interests. We are committed to provide quality education and training to our students and pave the way for their future advancement in careers in chemical testing and related industries. The Programme is attended by a mix of local and non-local students. All the lectures and laboratory sessions are held in easily accessible venues and scheduled at times for convenient attendance by working students both locally and those commuting across the border. We are pleased to see many of our graduates were able to find proper placements in Hong Kong, and other Mainland alumni of the Programme had secured up-scale positions in their hometowns. Such a reputable outcome fuels further impetus to the perpetuation of the Programme. We look forward to the enrolment of interested applicants.



# Course Details

## Required Courses (Total 9 credits)

### Laboratory Accreditation Based on ISO/IEC 17025

- provide comprehensive coverage of the requirements of the international accreditation standard based on ISO/IEC 17025
- focus on understanding the concepts of quality assurance and their implementation in laboratory testing and management
- provide training on performance management, including planning of audit and the auditing skills to be used in laboratory audit, and relevant follow-up action
- emphasize the importance of the laboratory management system in quality assurance and effectiveness of laboratory operation

### Measurement Uncertainty

- provide fundamental knowledge of various statistical tools for treatment of analytical data
- realize the estimation of measurement uncertainty based on relevant international practices
- apply various approaches in evaluation of uncertainty of measurement for different analytical methods and uncertainty of in-house calibration of general equipment
- report test results and compliance taking into consideration of measurement uncertainty

### Method Validation and Quality Control in Analytical Laboratory

- provide training and guidance on method validation requirements to ensure traceability, reliability and adequacy in performance of the method developed
- give a comprehensive coverage on various quality control practices to ensure the quality of test data
- focus on equipment qualification of general equipment used in analytical laboratories

## Elective Courses ( Total 18 credits)

*\*The elective offerings are subject to change.*

<b>Analytical Atomic Spectroscopy</b>	<b>Forensic Sciences and Doping Control</b>
<b>Chemical Testing of Construction Materials</b>	<b>Chemical Testing of Consumer Products</b>
<b>Chemistry and Analytical Methods of Surface Finishing and Coatings</b>	<b>Drinking Water Treatment Processes and Testing of Water Quality</b>
<b>Environmental Pollutants, Analysis and Monitoring</b>	<b>Food Safety Testing and Management System Certification</b>
<b>Metrology in Chemistry</b>	<b>MSc Thesis</b>
<b>Pharmaceutical Testing and Analysis</b>	<b>Principle and Practice of Chromatography and Mass Spectrometry in Analytical Sciences</b>
<b>Research Project in Method Development</b>	<b>Risk Management in Chemical Testing Laboratories</b>

## Admission Requirements

- A Bachelor degree in Science or related disciplines
- Fulfilment of the English Proficiency Requirement stipulated by Graduate School
- Experience in Chemical Testing Industry is preferable

For more details, please visit Graduate School Website at <http://www.gs.cuhk.edu.hk/admissions>

Applications will be processed on a rolling basis until all places have been filled. Therefore, early applications are strongly encouraged.

## Online Application



[https://www.gradsch.cuhk.edu.hk/OnlineApp/login\\_email.aspx](https://www.gradsch.cuhk.edu.hk/OnlineApp/login_email.aspx)

## Financial Assistance



### Continuing Education Fund (CEF)

This course has been included in the list of reimbursable courses under the Continuing Education Fund. Graduates (both full-time and part-time) are eligible to apply for Tuition fees reimbursement under the CEF Scheme.

Name of Institution: The Chinese University of Hong Kong  
CEF Institution Code: 002  
CEF Course Title: Master of Science in Accreditation Chemistry  
CEF Course Code: 42M135324



### Hong Kong Future Talents Scholarship Scheme for Advanced Studies (FTSS)

Established by the University Grants Committee (UGC) in 2025/26, the Hong Kong Future Talents Scholarship Scheme for Advanced Studies (FTSS) provides scholarships for local students to pursue designated taught postgraduate programmes.

## Programme Recognition



### Hong Kong Association for Testing, Inspection and Certification (HKTIC)

Graduates of this MSc programme meet the course requirements<sup>^</sup> for the Certified Testing Professional<sup>#</sup>(CTP) under the following categories

- Chemical Testing
- Construction Material Testing
- Environmental Testing
- Food Testing

<sup>^</sup> Additional requirements applied  
<sup>#</sup> Subject to the completion of selected elective courses



### Hong Kong Institution of Certified Auditors (HKICA)

Graduates of this MSc programme meet the requirements of the Hong Kong Institution of Certified Auditors (HKICA) for registration as

- Assistant Auditor (Laboratory Management)<sup>\*</sup>
- Registered Quality Testing Engineers (QTE) <sup>\*</sup>

<sup>\*</sup> Subject to the completion of selected elective courses.

## Contact Us

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